A

18q21.3

PI8 Bomapin PAI2 SCCA1 SCCA2 Headpin Maspin

B

A1 A2

a1 a2

A1/a2

a1 a2/A1 A2
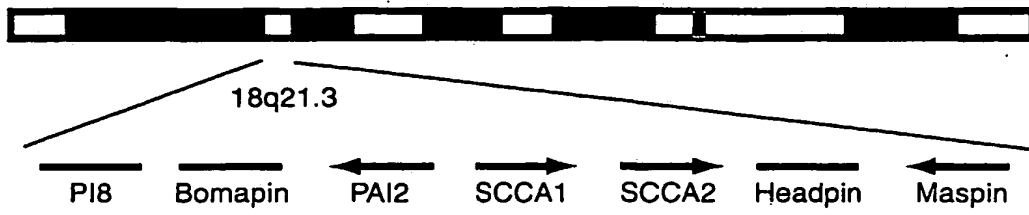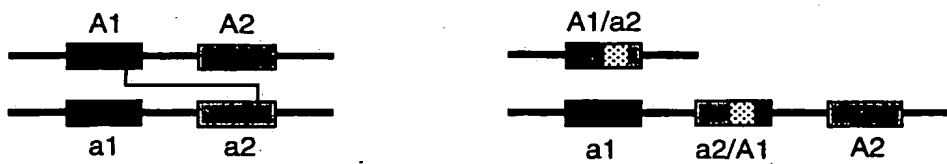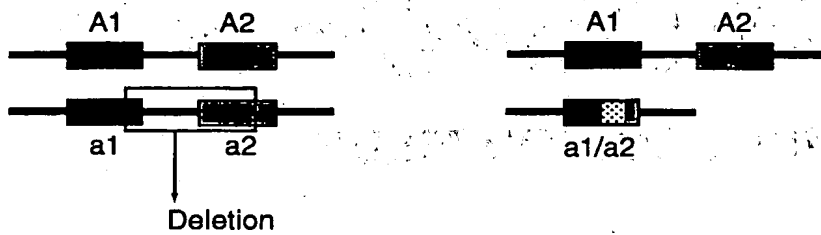
C

A1 A2

a1 a2

Deletion

A1 A2

a1/a2

SCCA1 I1-ATGAATTCAC TCAGTGAAGC CAACACCAAG TTCATGTTCG A**C**CTGTTCCA ACAGTTCAGA
SCCA2 I1-ATGAATTCAC TCAGTGAAGC CAACACCAAG TTCATGTTCG A**T**CTGTTCCA ACAGTTCAGA

AAATCAAAAG AGAACAACAT CTTCTATTCC CCTATCAGCA TCACATCAGC ATTAGGGATG
AAATCAAAAG AGAACAACAT CTTCTATTCC CCTATCAGCA TCACATCAGC ATTAGGGATG

GTCCTCTTAG GAGCCAAAGA CAACACTGCA CAACA**G**ATTA A**G**AAG-I2-GTTCT TCACTTTGAT
GTCCTCTTAG GAGCCAAAGA CAACACTGCA CAACA**A**ATTA **GC**AAG-I2-GTTCT TCACTTTGAT

CAAGTCACAG AGAACACCAC AG**G**AAAAGCT GCAACATATC AT-I3-GTTGATAG GTCAGGAAAT
CAAGTCACAG AGAACACCAC AG**A**AAAAGCT GCAACATATC AT-I3-GTTGATAG GTCAGGAAAT

GTTCATCACC AGTTTCAAAA GCTTCTGACT GAATTCAACA AATCCACTGA TGCATATGAG
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CTGAAGATCG CCAACAAGCT CTTCGGAGAA AA**A**ACGTATC T**A**TTTTTACA G-I4-GAATATTTA
CTGAAGATCG CCAACAAGCT CTTCGGAGAA AA**G**ACGTATC **A**ATTTTTACA G-I4-GAATATTTA

GATGCCATCA AGAAATTTTA CCAGACCAGT GTGGAATCT**G** TTGATTTTGC AAATGCTCCA
GATGCCATCA AGAAATTTTA CCAGACCAGT GTGGAATCT**A** CTGATTTTGC AAATGCTCCA

GAAGAAAGTC GAAAGAAGAT TAACTCCTGG GTGGAAAGTC AAACGAATG-I5-AAAAAATTAAA
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AACCTA**A**TTC CTGAA**GG**TA**A** TATTGGCA**GC** A**A**TAC**C**ACA**T** TGGTTCTTGT GAACGCAATC
AACCTA**T**TTC CTGA**T**G**G**GA**C** TATTGGCA**AT** G**A**TAC**G**ACA**C** TGGTTCTTGT GAACGCAATC

TATTTCAAAG GGCAGTGGGA GAA**G**AAATTT AA**T**AAAGAA**G** ATACTAAAGA GGAAAAATTT
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TGGCCAAACA AG-I6-AATACATA CAA**G**TC**CA**TA CAGATGATGA GGCAATACA**C** A**T**C**TTTT**CAT
TGGCCAAACA AG-I6-AATACATA CAA**AT**C**TG**TA CAGATGATGA GGCAATACA**A** **T**T**CCTTT**A**AT

TTTGCCT**C**GC TGGAGGATGT ACAGGCCAAG GTCCTGGAAA TACCATACAA AGGCAAAGAT
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CTAAGCATGA TTGTG**T**TGCT GCCAAATGAA ATCGATGGTC T**C**CAGAAG-I7-CTTGAAGAGAAA
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GATTTACACT TACCTCGGTT CAAA**A**TGGAA GAGAGCTATG ACCTCAAGGA CACGTTGAGA

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ACCATGGGAA TGGTG**A**ATAT CTTCAATGGG GATGCAGACC TCTCAGGCAT GACC**T**GGAGC

C**G**CGGTCTC**G** **TGC**TATCT**GG** AGTCCTACAC AAGGCCTTTG TGGAGGT**T**AC **A**GAGGAGGGA
C**A**CGGTCTC**T** **CAG**TATCT**AA** AGTCCTACAC AAGGCCTTTG TGGAGGT**CAC** **T**GAGGAGGGA

*GC**A**GAAGCTG CAGCTGCC**AC CGCTGTAGTA GGATTCGGAT CATCACCTAC TTCAACT**AAT*
*GT**G**GAAGCTG CAGCTGCC**AC CGCTGTAGTA GTAGTCGAAT TATCATCTCC TTCAACT**AAT*

GAAGAGTTC**C** A**T**TGTAATCA CCCTTTCCTA TTCTTCATAA GGCAAAATAA GACCAACAGC
GAAGAGTTC**T** G**T**TGTAATCA CCCTTTCCTA TTCTTCATAA GGCAAAATAA GACCAACAGC

ATCCTCTTCT ATGGCAGATT CTCATCCCC**G** TAG
ATCCTCTTCT ATGGCAGATT CTCATCCCC**A** TAG

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SCCA2 MNSLSEANTK FMFDLFQQFR KSKENNIFYS PISITSALGM VLLGAKDNTA

QQIKKVLHFD QVTENTTGKA ATYHVDRSGN VHHQFQKLLT EFNKSTDAYE
QQISKVLHFD QVTENTTEKA ATYHVDRSGN VHHQFQKLLT EFNKSTDAYE

LKIANKLFGE KTYLFLQEYL DAIKKFYQTS VESVDFANAP EESRKKINSW
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VESQTNEKIK NLIPEGNIGS NTTLVLVNAI YFKGQWEKKF NKEDTKEEKF
VESQTNEKIK NLFPDGTIGN DTTLVLVNAI YFKGQWENKF KKENTKEEKF

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IDGLQKLEEK LTAEKLMEWT SLQNMRETRV DLHLPRFKVE ESYDLKDTLR
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SCCA1A2 cDNA sequence

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GTCCTCTTAG GAGCCAAAGA CAACACTGCA CAACAGATTA AGAAGGTTCT TCACTTTGAT

CAAGTCACAG AGAACACCAC AGGAAAAGCT GCAACATATC ATGTTGATAG GTCAGGAAAT

GTTCATCACC AGTTTCAAAA GCTTCTGACT GAATTCAACA AATCCACTGA TGCATATGAG

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TGGCCAAACA AGAATACATA CAARTCYRTA CAGATGATGA GGCAATACAM WTCYTTTMAT

TTTGCCTYGC TGGAGGATGT ACAGGCCAAG GTCCTGGAAA TACCATACAA AGGCAAAGAT

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GATTTACACT TACCTCGGTT CAAARTGGAA GAGAGCTATG ACCTCAAGGA CACGTTGAGA

ACCATGGGAA TGGTGRATAT CTTCAATGGG GATGCAGACC TCTCAGGCAT GACCKGGAGC

CRCGGTCTCK YRSTATCTRR AGTCCTACAC AAGGCCTTTG TGGAGGTYAC WGAGGAGGGA

GYRGAAGCTG CAGCTGCCAC CGCTGTAGTA GTAGTCGAAT TATCATCTCC TTCAACTAAT

GAAGAGTTCT GTTGTAATCA CCCTTTCCTA TTCTTCATAA GGCAAAATAA GACCAACAGC

ATCCTCTTCT ATGGCAGATT CTCATCCCCA TAG

SCCA1A2 amino acid sequence

MNSLSEANTK FMFDLFQQFR KSKENNIFYS PISITSALGM VLLGAKDNTA

QQIKKVLHFD QVTENTTGKA ATYHVDRSGN VHHQFQKLLT EFNKSTDAYE

LKIANKLFGE KTYLFLQEYL DAIKKFYQTS VESVDFANAP EESRKKINSW

VESQTNEKIK NLIPEGNIGS NTTLVLVNAI YFKGQWEKKF NKEDTKEEKF

WPNKNTYKSɪ/v QMMRQYt/nSFh/n FAs/lLEDVQAK VLEIPYKGKD LSMIVLLPNE

IDGLQKLEEK LTAEKLMEWT SLQNMRETr/cV DLHLPRFKv/mE ESYDLKDTLR

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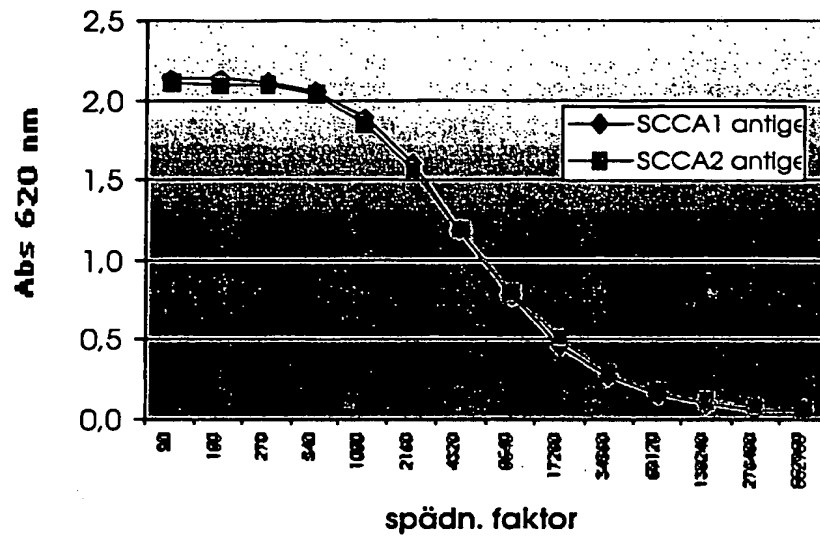
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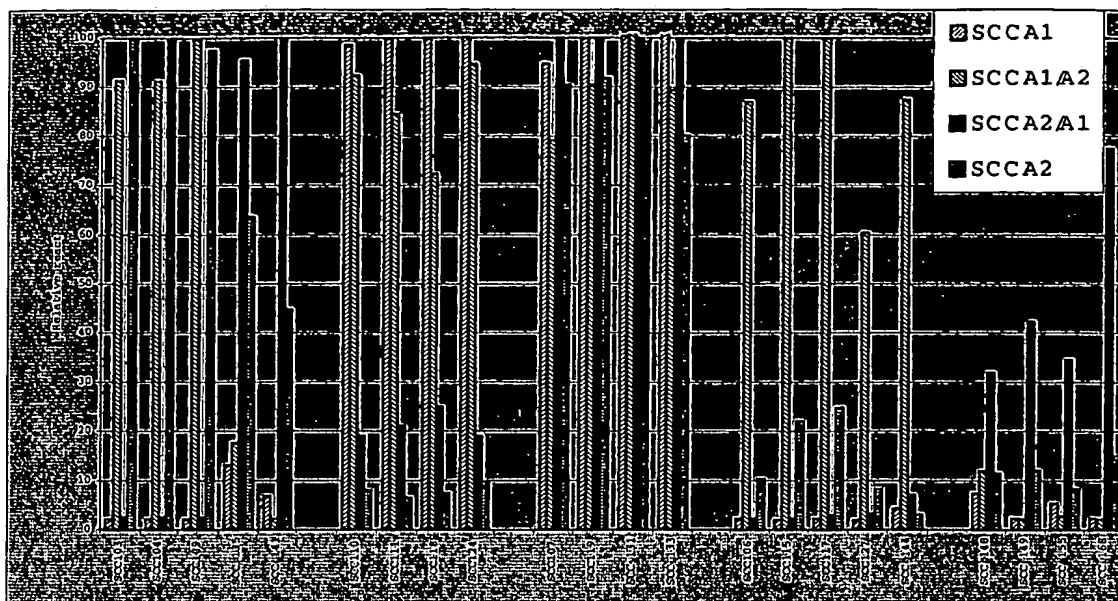
SCCA2A1 cDNA sequence

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CAAGTCACAG AGAACACCAC AGAAAAAGCT GCAACATATC ATGTTGATAG GTCAGGAAAT
GTTCATCACC AGTTTCAAAA GCTTCTGACT GAATTCAACA AATCCACTGA TGCATATGAG
CTGAAGATCG CCAACAAGCT CTTCGGAGAA AAGACGTATC AATTTTTACA GGAATATTTA
GATGCCATCA AGAAATTTTA CCAGACCAGT GTGGAATCTA CTGATTTTGC AAATGCTCCA
GAAGAAAGTC GAAAGAAGAT TAACTCCTGG GTGGAAAGTC AAACGAATGA AAAAATTAAA
AACCTATTTC CTGATGGGAC TATTGGCAAT GATACGACAC TGGTTCTTGT GAACGCAATC
TATTTCAAAG GGCAGTGGGA GAATAAATTT AAAAAAGAAA ACACTAAAGA GGAAAAATTT
TGGCCAAACA AGAATACATA CAARTCYRTA CAGATGATGA GGCAATACAM WTCYTTTMAT
TTTGCCTYGC TGGAGGATGT ACAGGCCAAG GTCCTGGAAA TACCATACAA AGGCAAAGAT
CTAAGCATGA TTGTGYTGCT GCCAAATGAA ATCGATGGTC TSCAGAAGCT TGAAGAGAAA
CTCACTGCTG AGAAATTGAT GGAATGGACA AGTTTGCAGA ATATGAGAGA GACAYGTGTC
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ACCATGGGAA TGGTGRATAT CTTCAATGGG GATGCAGACC TCTCAGGCAT GACCKGGAGC
CRCGGTCTCK YRSTATCTRR AGTCCTACAC AAGGCCTTTG TGGAGGTYAC WGAGGAGGGA
GYRGAAGCTG CAGCTGCCAC CGCTGTAGTA GGATTCGGAT CATCACCTAC TTCAACTAAT
GAAGAGTTCC ATTGTAATCA CCCTTTCCTA TTCTTCATAA GGCAAAATAA GACCAACAGC
ATCCTCTTCT ATGGCAGATT CTCATCCCCG TAG
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SCCA2A1 amino acid sequence

MNSLSEANTK FMFDLFQQFR KSKENNIFYS PISITSALGM VLLGAKDNTA

QQISKVLHFD QVTENTTEKA ATYHVDRSGN VHHQFQKLLT EFNKSTDAYE

LKIANKLFGE KTYQFLQEYL DAIKKFYQTS VESTDFANAP EESRKKINSW

VESQTNEKIK NLFPDGTIGN DTTLVLVNAI YFKGQWENKF KKENTKEEKF

WPNKNTYKSi/v QMMRQYt/nSFh/n FAs/lLEDVQAK VLEIPYKGKD LSMIVLLPNE

IDGLQKLEEK LTAEKLMEWT SLQNMRETr/cV DLHLPRFKv/mE ESYDLKDTLR

TMGMVD/NIFNG DADLSGMTG/WS R/HGLV/SL/VSG/KVLH KAFVEVTEEG A/VEAAAATAVV

GFGSSPASTN EEFHCNHPFL FFIRQNKTNS ILFYGRFSSP

C mplexbinding of SCCA